



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/849,501	05/04/2001	Elias Bjarnason	09785980-0095-97RSS022	8697

7590 09/04/2002

Francisco Rubio-Campos Esq
Sonnenschein Nath & Rosenthal
601 S Figueroa Street
Suite 1500
Los Angeles, CA 90017

EXAMINER

BAYARD, EMMANUEL

ART UNIT

PAPER NUMBER

2631

DATE MAILED: 09/04/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/849,501

Applicant(s)

BJARNASON ET AL.

Examiner

Emmanuel Bayard

Art Unit

2631

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 August 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) 1-11, 14 and 15 is/are rejected.
- 7) ☐ Claim(s) 12, 13 and 16-29 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

Art Unit: 2631

DETAILED ACTION

1. This is in response to reissue application filed on 05/04/01 in which claims 1-29 are pending.

Claim Objections

2. Claims 12-29 are objected to because of the following informalities: the new added claim should be completely underlined (see MPEP 1453). Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 1-11, 14-15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
5. Claim 1 recites the limitation "said line coder" in line 8. There is insufficient antecedent basis for this limitation in the claim.
6. Claim 4 recites the limitation "the transfer function" in line 11. There is insufficient antecedent basis for this limitation in the claim.
7. Claim 5 recites the limitation "the spectrum" in line 2. There is insufficient antecedent basis for this limitation in the claim.

Art Unit: 2631

8. Claim 10 recites the limitation "the transfer function" in line 15. There is insufficient antecedent basis for this limitation in the claim.

9. Claim 14 recites the limitation "the transfer function" in line 10. There is insufficient antecedent basis for this limitation in the claim.

Claims 2-3, 6-9, 11, 15 are likewise rejected because they depend on a base rejected claims.

Allowable Subject Matter

10. Claims 12-13, 16-29 would be allowable if rewritten to overcome the above objection.

11. Claims 1, 5, 10 and 14 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action.

12. Claims 2-3, 6-9, 11, 15 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

The following is an examiner's statement of reasons for the indication of allowable subject matter: the present invention teaches a training method for use with a pulse code modulation (PCM) modem system. The closest prior art of Chung U.S. Patent No 4,995,057 teaches a similar method. However the closest prior art fails to anticipate or render obvious the recited features: wherein said adjusting step comprises the step of decreasing the number of redundancy bits associated with line coder as recited in claim 1; said training sequence having a less-colored

Art Unit: 2631

spectrum, relative to said colored transmit signals, over a limited bandwidth, wherein the spectrum of said training sequence is characterized by a reduction in DC suppression relative to said transmit signal as recited in claims 4, 12, 14, 20, 23; a logic circuit element to generate a predetermined sequence, wherein said predetermined training signal includes a second portion characterized by a color spectrum over said predetermined bandwidth, relative to the spectrum of the first portion as recited in claims 5, 10, 16, 18, 24 and 28. In combination with the rest of the system these features have been recited in all independent claims and render them allowable.

Conclusion

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Ayanoglu et al U.S. Patent No RE37,569 E teaches a high speed modem.

Chung U.S. Patent No 4,995,057 discloses a technique for achieving the theoretical gain of digital signals incorporating error correction.

Blackwell et al U.S. Patent No 5,598,401 teaches an apparatus and method for a digital data communications device.

Moran, III et al U.S. Patent No 5,870,429 teaches an apparatus method, and software modem.

Eyuboglu et al U.S. Patent no 6,198,776 B1 teaches a device and method for precoding.

Townshend U.S. Patent No 5,809,075 teaches a high speed communications system.

Stuart U.S. Patent No 4,489,416 teaches an equalization system.

Art Unit: 2631

Larsson et al U.S. Patent 5,694,423 teaches a method and apparatus for detecting and correcting misconvergence of a blind equalizer.

Lanberg U.S. Patent No 5,732,112 teaches a channel training.

Moran, III; John L. Et al U.S. Patent No 5,463,661 teaches a TX preemphasis filter.

Bremer et al U.S. Patent No 5,661,718 teaches a simultaneous analog and digital communication.

Marchetto et al U.S. Patent No 5,666,378 teaches a high performance modem.

Gray U.S. Patent No 5,677,951 teaches an adaptive filter.

Finn U.S. Patent No 5,706,344 teaches an acoustic echo cancellation.

Haneda et al U.S. Patent No 5,721,772 teaches a subband acoustic echo canceler.

Allen U.S. Patent No 5,737,389 teaches a technique for determining a compression of ratio.

Vahatalo et al U.S. Patent No 5,737,410 teaches a method for determining the location of echo.

Hayashi U.S. Patent No 5,740,242 teaches an echo canceler.

Hulyalkar et al U.S. Patent No 5,761,088 teaches a method and apparatus for channel identification.

Rahamim et al U.S. Patent No 5,764,694 teaches a self-testing and evaluation system

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Emmanuel Bayard whose telephone number is (703) 308-9573. The examiner can normally be reached on Monday-Thursday from 8:00 AM - 5:30 PM. The examiner can also be reached on alternate Fridays.

Art Unit: 2631

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi Pham, can be reached on (703) 305-4378. The fax phone number for this Group is (703) 305-9508.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-3800.

A handwritten signature in black ink, appearing to read 'Emmanuel Bayard', is written over the printed name.

Patent Examiner

August 16, 2002